

ABSTRACT

The present invention provides a linear motor in which the loss of the motor is reduced and a motor efficiency is improved.

A linear motor includes: a mover part including an armature module having an I shaped magnetic iron core (1) and an armature winding (2) of one kind wound on the periphery of the I shaped magnetic iron core (1) through an insulating resin (3), a non-magnetic material holder (4) on which a plurality of armature modules are arranged in a stroke direction, and a base upper plate (8a) and a base lower plate (8b) for attaching the non-magnetic material holder (4) in its upper and lower parts respectively; and a stator part including a plurality of field permanent magnets (10) opposed to the I shaped magnetic iron cores (1) through magnetic spaces and field yokes (9) for supporting the field permanent magnets (10). The non-magnetic material holder (4) has through holes (41) corresponding to the forms and the arranging pitches of the I shaped magnetic iron cores (1) and bolts (5) are inserted into the through holes (41) to fix the non-magnetic holder to the base upper plate (8a) and the base lower plate (8b).